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REMARKS

Claims 1-21 are pending in this Application. Applicants have editorially amended claims 1, 8, 10, and 17. No new matter is added. Entry of this Amendment is proper because it narrows the issues on appeal and does not require further search by the Examiner.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

With respect to the prior art rejections, claims 1-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Niikawa (US Patent No. 7,075,569) in view of Matherson et al., hereinafter, Matherson (US Patent No. 7,233,352), and further in view of Suzuki (US 5,504,525).

Applicants respectfully traverse this rejection in the following discussion.

I. THE CLAIMED INVENTION

The invention of claim 1, for example, is directed to a digital camera for photo-electrically transducing an object field formed by an image pick-up lens into an image signal representing the object field.

The digital camera includes an image sensor for generating an image signal representing the image of the object field formed, a signal processor for processing the image signal representing the image of the object field to produce image data, an output circuit for outputting the image data produced, a controller responsive to operating information for controlling the image sensor, the signal processor and the output circuit to generate a shading correction condition and a white balance adjustment condition or to correct the image signal representing the image of the object field, a storage for storing the white balance adjustment condition and the shading correction condition, and an operating unit that has an automatic/manual white balance switch for receiving the operating information corresponding to an operation by an operator.

The controller produces, upon recognition that the operating information commands manual white balance adjustment controlling calibration imaging for imaging an object

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placed in front of the image pick-up lens, the shading correction condition and the white balance adjustment condition for correcting the image signal to be generated at a time of actual imaging, based on the image signal generated by the image sensor at a time of the calibration imaging, and causes the produced shading correction condition to be stored in the storage.

The controller reads out, when commanding the actual imaging to cause the generated image signal to be processed by the signal processor, the shading correction condition and the white balance adjustment condition stored in the storage to send out a read-out correction conditions condition to the signal processor. The signal processor corrects shading of the image signal for the actual imaging, in accordance with the shading condition supplied from the controller, and also correcting white balance of the image signal for the actual imaging, in accordance with the white balance adjustment condition supplied from the controller.

In a conventional digital camera, as described in the Background of the present Application, a processing procedure of sequence for adjusting the white balance or correcting the shading is carried out. Also, in actual imaging, the shading may be changed depending on various imaging conditions. Thus for achieving more stringent adjustment, it is desirable that adjustment be carried out under an actual imaging condition (e.g., see Application paragraph [0004]).

Carrying out the white balance adjustment and the shading correction separately, based on operation of a conventional digital camera, necessitates a complicated operation (e.g. see Application at paragraph [0005]).

The claimed invention, however, provides a digital camera that includes an operating unit that has an automatic/manual white balance switch for receiving the operating information corresponding to an operation by an operator, and a storage for storing the white balance adjustment condition. (e.g., see Application at paragraph [0038]; Fig.1)

The controller produces, upon recognition that the operating information commands manual white balance adjustment controlling calibration imaging for imaging an object placed in front of the image pick-up lens, the shading correction condition and the white balance adjustment condition for correcting the image signal to be generated at a time of actual imaging, based on the image signal generated by the image sensor at a time of the calibration imaging, and causes the produced shading correction condition to be stored in the storage (e.g., see Application at paragraph [0039]).

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These features are important because with this arrangement, the digital camera facilitate a correction condition for manual white balance adjustment to perform white balance adjustment and shading correction based on the correction condition at the time of actual image pickup operation with manual pickup (e.g., see Application at paragraph [0038]).

II. THE PRIOR ART REJECTION

In rejecting claims 1-21, the Examiner alleges that one of ordinary skill in the art would have combined Niikawa with Matherson and Suzuki to render obvious the claimed invention. Applicants respectfully submit, however, that the references would not have been combined as alleged by the Examiner and that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Niikawa, Matherson, and Suzuki do not teach or suggest, "A digital camera for photo-electrically transducing an image of an object field formed by an image pick-up lens into an image signal representing the object field, comprising: ...an operating unit comprising an automatic/manual white balance switch for receiving the operating information corresponding to an operation by an operator." (emphasis added by Applicants) as recited in claims 1 and 6.

The Examiner alleges that Niikawa teaches the claimed operating unit. Specifically, the Examiner attempts to analogize the keyword 63 of Niikawa to the claimed operating unit (see Office Action at page 4, lines 13-14).

Niikawa, however, teaches that keyboard 63 is part of an external personal computer that performs graduation control process (e.g., see Niikawa at col. 20, lines 28-31; col. 20, lines 8-10; Fig. 18). Indeed, the keyboard 63 and computer 50 of Niikawa are external devices that communicate with the digital camera to perform an image synthesis process, based on the fourth embodiment of Niikawa's system (col. 19, line 61- col. 20, line 10; Fig. 18).

On the contrary, in the claimed invention, the digital camera includes an operating unit with an automatic/manual white balance switch for receiving the operating information corresponding to an operation by an operator, as recited in claim 1, and similarly recited in claim 6.

Indeed, the Examiner bases his rejection upon Fig. 13, which shows the second

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embodiment of Niikawa's system and alleges that Niikawa teaches the features elements of the claimed digital camera (see Office Action at page 2, section 4, line 4 – page 4, line 12). Then, for allegedly teaching the claimed operating unit, the Examiner relays on Fig. 18 and col. 22 of Niikawa, which teach the fourth embodiment of Niikawa's system, including interaction of an external computer with the digital camera, which is completely distinct from the first embodiment of Niikawa's system. The Examiner attempts to take and combine different elements from distinct embodiments of Niikawa, and to equalize the keyboard 63 of the external computer to the internal operating unit of the claimed invention, which is included within the claimed digital camera, as recited in claim 1, and similarly in claim 6.

Indeed, Niikawa teaches that the second embodiment of Niikawa's system includes operational part 101, which merely inputs operational information from the operational members of the camera main body 2 to the general controller (see Fig. 13 and col. 9, lines 47-53 of Niikawa). The operating unit 101 of Niikawa, however, lacks the ability to receive the operating information corresponding to an operation by an operator, as claimed in the claimed invention.

Furthermore, Applicants submit that Niikawa, Matherson, and Suzuki do not teach or suggest, "a storage for storing the adjustment condition and the shading correction condition," (emphasis added by Applicants) as recited in claim 1.

The Examiner alleges that Niikawa teaches the claimed storage. Specifically, the Examiner attempts to analogize the ROM 151 of Niikawa to the claimed storage, which stores the white balance adjustment condition (see Office Action at page 4, lines 10-12).

Indeed, Niikawa teaches that ROM 151 only stores processing programs for executing a variety of processing programs and control programs for controlling driving of members of digital camera 1 (col. 9, lines 60-65). Niikawa further teaches that shading ROM 153 is merely for storing shading correction condition (col. 8, lines 24-25). Indeed, Niikawa in Fig. 13 or column 12-16, upon which the Examiner bases his rejection (or anywhere else, for that matter), fails to teach or suggest, "a storage for storing the adjustment condition and the shading correction condition," (emphasis added by Applicants) as recited in claim 1.

On the contrary, the storage of the claimed invention stores the white balance adjustment condition that was generated by the output circuit, as recited in claim 1. Therefore, Niikawa lacks the teachings of a storage that stores the white balance adjustment

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condition from the output circuit.

Moreover, Applicants submit that Niikawa, Matherson, and Suzuki do not teach or suggest, *"said controller producing, upon recognition that the operating information commands manual white balance adjustment controlling calibration imaging for imaging an object placed in front of the image pick-up lens... and causing the produced shading correction condition to be stored in said storage,"* (emphasis added by Applicants) as recited in claims 1 and 6.

The Examiner alleges that Niikawa teaches the claimed controller. Specifically, the Examiner attempts to analogize the external computer and digital camera interaction of Niikawa to the claimed controller's function. Particularly, the Examiner states that *"said controller producing"* (emphasis added by Applicants) (see Office Action at page 4, lines 15-18).

Niikawa, however, teaches that the external computer-camera interaction that the Examiner attempts to analogize to the claimed controller's function is for the fourth embodiment of Niikawa's system - as shown in Fig. 20 and disclosed in col. 21, lines 61 - col. 22, line 4 - which the Examiners relies on in his rejection.

Indeed, the Examiner alleges that controller 150 of the second embodiment of Niikawa's system teaches the claimed controller (see Office Action at page 4, lines 6-9). Then, for allegedly teaching storing the produced shading correction condition, upon recognition that the operating information commands manual white balance adjustment controlling calibration imaging for imaging an object placed in front of the image pick-up lens, the Examiner relies on Fig. 20 and columns 21 and 22 of Niikawa, which teach the fourth embodiment of Niikawa's system, including control interaction of an external computer with the digital camera.

Niikawa, however, teaches that the fourth embodiment is completely distinct from the first embodiment of his system. Indeed, the fourth embodiment of Niikawa's invention discloses external devices that communicate with the digital camera to perform and control an image synthesis process (col. 19, line 61- col. 20, line 10).

Indeed, the personal computer 60 of the fourth embodiment of Niikawa's invention stores a plurality of correction tables used for the shading correction in a stationary disk which is a memory device in the computer main body 61 (col. 20, lines 35-37). This is different from and teaches away from the claimed invention, in which the controller causes

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the produced shading correction condition to be stored in "said storage" (emphasis added by Applicants) that is part of the claimed digital camera, as recited in claim 1.

The Examiner attempts to take and combine different elements from distinct embodiments of Niikawa, and to equalize the functions of the external computer of the fourth embodiment of Niikawa's invention to the controller of the claimed invention, which was allegedly analogized to controller 150 based on the teachings of the second embodiment of the claimed invention.

Indeed, controller 150 of the first embodiment of Niikawa's system merely selects a correction table from the shading ROM 153 (col. 8, lines 22-31) and lacks the ability to store the produced shading correction condition, upon recognition that the operating information commands manual white balance adjustment controlling calibration, as recited in claim 1, and similarly recited in claim 6. Therefore, Niikawa fails to teach or suggest the claimed controller.

Furthermore, Applicants submit that Niikawa, Matherson, and Suzuki do not teach or suggest, "said controller producing, upon recognition that the operating information commands manual white balance adjustment controlling calibration imaging for imaging an object placed in front of the image pick-up lens, the shading correction condition and the white balance adjustment condition for correcting the image signal to be generated at a time of actual imaging, based on the image signal generated by said image sensor at a time of the calibration imaging," (emphasis added by Applicants) as recited in claims 1 and 6.

The Examiner alleges that Matherson teaches the claimed function. Specifically, the Examiner attempts to analogize the characteristic planes of Matherson's invention to the claimed controller's function (see Office Action at page 5, line 20 – page 6, line 2).

The Examiner, however, ignores the fact that the claimed controller performs the shading correction condition and the white balance adjustment condition for correcting the image signal to be generated at a time of actual imaging, based on the image signal generated by the image sensor at a time of the calibration imaging, as recited in claim 1, and similarly recited in claim 6 (see Office Action at page 5, line 20 – page 6, line 2).

Indeed, the Examiner alleges that controller 150 of the second embodiment of Niikawa's system teaches the claimed controller (see Office Action at page 4, lines 6-9). Then, for allegedly enabling the claimed controller to perform the claimed shading correction condition and the white balance adjustment condition for correcting the image signal to be

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generated at a time of actual imaging, the Examiner relays on teachings of Matherson, which teaches a non analogous system to the claimed controller (e.g., see Matherson at col. 3, lines 33-53).

The Examiner attempts to take and combine different elements and functions from non analogous systems of Niikawa and Matherson to enable the controller of Niikawa to function as the claimed controller. Therefore, Applicants respectfully submit that one of ordinary skill in the art would not have combined the references as alleged by the Examiner and that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

Moreover, Applicants submit that since Suzuki teaches away and changes the principle of operation of Niikawa's device, one of ordinary skill in the art would not have combined Niikawa and Matherson with the teachings of Suzuki.

The Examiner alleges that Niikawa teaches the claimed operating unit. Specifically, the Examiner attempts to analogize the keyword 63 of Niikawa to the claimed operating unit (see Office Action at page 4, lines 13-14).

Then, the Examiner attempts to enable the operating unit of Niikawa by combing the reference with the teachings of Suzuki, based on automatic/manual white balance switch 120 of Suzuki (see Office Action at page 5, lines 14-19).

Niikawa, however, teaches that keyboard 63 is part of an external personal computer that performs graduation control process (e.g., see Niikawa at col. 20, lines 28-31; col. 20, lines 8-10; Fig. 18). The keyboard 63 and computer 50 are external devices that communicate with the digital camera to perform an image synthesis process, based on the fourth embodiment of Niikawa's system (col. 19, line 61- col. 20, line 10; Fig. 18).

Niikawa further teaches that a user enters a focal length and an f-number at the time of capturing an image via the external computer keyboard 63, through which a correction table selection condition is manually designated (col. 22, lines 1-4).

Suzuki teaches the white balance adjustment switch 120 for selection of an adjustment mode, which include switch 121 for auto and switches 122-125 for manual white balance adjustment modes (col. 5, lines 12-22). Switch 120 of Suzuki is part of the digital camera and selects the mode for control unit 210 (e.g., see Fig. 3 of Suzuki).

The alleged operating unit, the keyword 63 of Niikawa, is part of an external computer, which the user can only enter the data manually. Therefore, Applicants submit

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that Suzuki's device based on the switch 120, which is located with the digital camera and can change the white balance adjustment to manual and auto modes, teaches away and changes the principle of operation of the Niikawa's invention. Therefore, one of ordinary skill in the art would not have combined Niikawa and Matherson with the teachings of Suzuki.

Moreover, Applicants submit that in rejecting claim 12, the Examiner has not provided any reasoning for combining the features of Niikawa and Matherson with the teachings of Suzuki.

Applicants respectfully submit, however, *"Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."* (In re Kahn, 441 F. 3d 977, 988 (CA Fed. 2006))

If the Examiner wishes to maintain this rejection, the Examiner is requested to provide articulated rational to explain why one of ordinary skill would have combined each feature of Niikawa and Matherson that the Examiner is attempting to combine with the teachings of Suzuki.

Furthermore, in rejecting claim 14, the Examiner's rejection merely recites Applicant's claim language with vague references to Niikawa. The Examiner alleges that Niikawa in column 8, lines 22-31 and 46-51 teaches, *"in performing the manual white balance adjustment, the controller produces said shading correction condition and said white balance adjustment condition, based on image signal data obtained on performing the condition-finding or calibrating image pickup operation for the purpose of said manual white balance adjustment, to cause so-produced conditions to be stored in a memory"* (emphasis added by Applicants) (see Office Action at page 8, lines 5-13). The Examiner, however, is clearly incorrect.

Indeed, col. 8, lines 22-31 and 46-51 of Niikawa, upon which the Examiner bases his rejection, merely teaches an automatic white balance adjustment, based on the stored correction tables. Niikawa, however, is silent about, and fails to teach or suggest, in col. 8, lines 22-31 and 46-51 (or anywhere else, for that matter), *"in performing the manual white balance adjustment, the controller produces said shading correction condition and said white balance adjustment condition, based on image signal data obtained on performing the condition-finding or calibrating image pickup operation for the purpose of said manual*

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white balance adjustment, to cause so-produced conditions to be stored in a memory,” (emphasis added by Applicants) as recited in claim 14. Therefore, Niikawa fails to teach or suggest the claimed controller.

Therefore, Applicants respectfully submit that, one of ordinary skill in the art would have combined Niikawa with Matherson and Suzuki to render obvious the claimed invention, and even if combined, Niikawa in view of Matherson et al. and further in view of Suzuki does not teach or suggest (or render obvious) each and every feature of the claimed invention. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

III. FORMAL MATTERS AND CONCLUSION

The Examiner is referred to the first line in page 3 of Supplemental Amended filed on December 11, 2007, which recites, “said storage”. Therefore, the Examiner’s claim objection is incorrect.

In view of the foregoing, Applicants submit that claims 1-21, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

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The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

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Respectfully Submitted,

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I hereby certify that I am filing this paper via facsimile, to Group Art Unit 2622, at
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